homework 8

Semantics 3, UCLA Linguistics

due April 25, 2022

The modifier *half* can go in a bunch of different places.

(1) *gradable adjectives*
   a. The glass is half full.
   b. The cake is half baked.

(2) *partitives*
   a. Jerome ate half (of) the cherries.
   b. Half (of) the books are on the table.

(3) *verb phrases*
   a. The girls half washed the dishes.
   b. John half ate an apple.

Assume that our semantics for adjectives is as it has always been (type $\langle d, \langle e, t\rangle\rangle$). Assume that the base semantics for *half* is as in (4).

(4) $[\![\text{half}]\!] = \lambda G_{\langle d,\langle e,t\rangle\rangle}\lambda x.G(x)(\mathsf{mid}(S_G))$, where $\mathsf{mid}(S_G)$ is the midpoint of G's closed scale S.

A. Choose one of the sentences in (1) and provide a step-by-step compositional analysis of it. You should feel free to represent the definite as a constant (e.g. g for *the glass*) but you don't have to.

To treat the sentences in (2) and (3), and assuming that our base semantics for *half* is as in (4), we need a way to convert the verbs in (3) to a gradable adjective type. Bochnak (2010) joins the rank of many others (like Krifka before him) in proposing an event-to-degree homomorphism:

(5) $\mu_V \rightarrow \lambda P\lambda d\lambda e\exists x[P(x) \wedge \mathsf{theme}(e)(x) \wedge \mathsf{quantity}(x) = d]$

Assume further that *of* in partitives like (2) denotes a function of type $\langle e, \langle e, t\rangle\rangle$:

(6) $[\![\text{of}]\!] = \lambda x\lambda y.y \leq x$

B. Provide a step-by-step compositional analysis of (2-a).

C. What sort(s) of innovation(s) would this theory require to extend to the sentences in (3)? You can answer this question informally.

D. **Bonus question:** Consider the prenominal modifier *halfass*, as in *He did a halfass job*. Propose a meaning for *halfass* and any other semantic component you'd need to get the truth conditions right for this sentence.

Credit where credit is due:
Bochnak, M. Ryan. 2010. "Quantity and gradability across categories." *Proceedings of SALT 20*, 1-18.